## NPDES Permit Number: MAR10D585

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| Project Name: | **Route 62 Roadway Resurfacing and Reconstruction** |
| Project Address: | Route 62 Concord, Massachusetts |
| Project Proponent: | **Town of Concord Public Works/ MHD** |
| Report Prepared By: | Mary Trudeau, Environmental Consultant |
| Date of Report/Site Visit: | October 23, 2009 |

Weather this work week was seasonable with insignificant or trace rainfall events. There was a prediction for heavier rainfall on the weekend of October 23/24, 2009, and there was some light precipitation at the time of my visit. At the date of my visit on October 23, 2009, it was apparent that work had progressed throughout the week. The roadway was completely paved, striped and driveway apron and shoulder work was ongoing.



Catchbasins were either protected or paved over at the time of my visit. I did find one or two grates that were not lined, but neither was in an area likely to receive sediment laden flows due to current grading. The following photos show both the “missing catchbasins” and one of the unlined basins:



Last week the contractor rebuilt the outfall on the north side of Route 62, located at station point 23+25. While the shoulder has been rebuilt and is relatively stable, the work resulted in the deposition of fine silty sediment within the area between the culvert

and the down gradient erosion controls.  I would recommend hand removal of the sediments, and adding stone to the outfall to stabilize the channel below the culvert. The following photo shows this area of concern:


And the photo below shows the top of the headwall and the slope below the roadway:


As can be seen in the first  photo, there is an accumulation of fines on the check dam/wattle immediately below the outfall.  While there is silt fence and haybale check

dam below, this wattle is now acting to discharge sediment as the flows from the culvert pass over or through the wattle. I would recommend replacing this wattle, or shifting it so that an unsilted section of the wattle lies across the flow path.

I continue to have some residual concern with the outfall at station point 15+00, on the north side of Route 62. While the erosion controls looked intact, it was apparent that there has been some historic discharge of sediment to downgradient buffer zone and wetland resource areas. While I suspect the discharge happened several weeks ago, the recent die back of the herbaceous plants in the locus has revealed the drainage patterns below the outfall. While the accumulations are not significant, the contractor should send a laborer to rake and remove any deposits of material. The following photo shows this area on October 18, 2009:


As noted in earlier reports, I am concerned with the upcoming detailing of the slope adjacent to either end of the easternmost retaining wall. This wall is located at approximately station point 27+50, on the south side of Route 62. I have spoken with Alan Visco of EH Perkins Construction and noted that I am concerned that the work should include stone and hand work to stabilize the area at either end of the wall. The contractor should insure, particularly on the eastern end of the wall (left hand photo below) that the materials used to stabilize the slope utilize the erosion controls for support. The toe of the finished slope should be set, and stabilized, at the back side of the retaining wall, and should not encroach onto the down gradient silt fence barrier. The following photo shows the areas of concern:


Also noted in earlier reports, Mrs. Sulewski, a condominium owner on Cranberry Lane noted that a tree fall at the south side of Route 62, at approximately station point 25+75 has fallen into and across her yard. Alan Visco and Minot Wood of EHPerkins Construction have determined that the tree fall is within forty feet of the centerline of the road (and is their responsibility) and that it will be cut and removed when the tree cutting crew returns to the site. The following photo shows the tree roots within the job locus:

In summary, the following is a list of tasks that should occur at the end of each work day, and/or after any rain event, as well as those tasks that should be done this week in response to this report:

1. The contractor should rebuild the erosion controls below the new headwall at station point 23+25 on the north side of Route 62. This task should include hand removal of the accumulation of fine sediments above the existing checkdam.
2. As catch basins are cut out of the newly paved areas, the contractor should install liners when unstabilized slopes will discharge sediment to the basins during rain events.
3. The contractor should address the sedimentation that has occurred down gradient of the drainage outfall at station point 15+00. Raking and hand work is the appropriate remediation.
4. The contractor should consider the slope treatment of either end of the retaining wall at station point 27+00, on the southern shoulder of Route 62, and should plan on hand work in the more sensitive areas.
5. The contractor should remove the tree fall at station point 25+75. It should be cut and removed from the site.
6. There is also a little pile of slash on the south side of the erosion controls at station point 28+25 (south side of Route 62) that should be pulled and disposed of off site. This was left by the tree cutters in the initial clearing of the site.
7. After a rain event, inspect each catch basin liner. Torn liners should be replaced; silted liners should be removed, cleaned and replaced.
8. In general, pavement adjacent to catch basins should be swept or shoveled to remove excess sediment deposits from the perimeter of the catch basins.
9. Excess sediment should be swept from the pavement in areas where sediment has been deposited during the work day. Brooms and hand shovels should be on site every day.
10. If there has been a rain event, the contractor should walk the length of the erosion and siltation control barrier and make necessary repairs, including the removal of sediment deposits from the erosion controls. A hand shovel and staple gun should be onsite to make these repairs.
11. In areas where work is located in close proximity to the erosion controls, the contractor shall make sure that any loose sediment, branches or debris that maybe piled against the straw wattles and silt fence is removed.

As noted in past weeks reports, the rough sequence of activities is roughly as follows:

1. repair and maintenance of the required erosion and siltation control barriers (ONGOING);
2. installation of signage and staging of the project (ONGOING);
3. survey work to establish the limits of the project (COMPLETED);
4. clearing and grubbing within the limit of work line (LARGELY COMPLETED);
5. construction of the various retaining walls along the roadway (COMPLETED);
6. removal and replacement or improvement of drainage structures and outfalls (ONGOING);
7. roadway reconstruction and resurfacing between the Assabet River at the Maynard Town Line to approximately Water Street, to the east (ONGOING).

Based on my site inspections this week, it is my professional opinion that with the repairs requested or noted above, the project will be in compliance with, both, the NPDES permit and the Order of Conditions issued by the Concord Natural Resources Commission.

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Mary Trudeau, Wetlands Consultant
October 23, 2009